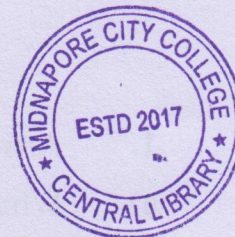


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PG (NEW) CBCS
M.Sc. Semester-I Examination, 2018
NUTRITION & DIETETICS
PAPER: NUD-103



(Metabolism of Macro and Micro Nutrients and its Molecular Basis)

Full Marks: 40**Time: 2 Hours**

Write the answer for each unit in separate sheet

Unit-5

(Metabolism of Macro Nutrients and its Molecular Basis)

Group-A

- 1. Answer any two of the following questions: 2×2=4**
- a) Distinguish between catabolism and anabolism.
 - b) Give two steps of invisible pathway of cytolysis.
 - c) What do you mean by Oxidative deamination?
 - d) Write the role of acetyl-coA in fatty acid synthesis.

Group-B

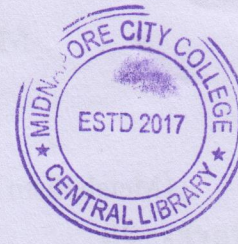
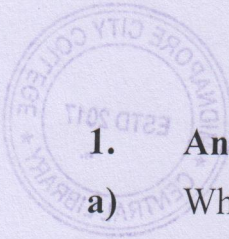
- 2. Answer any two of the following questions: 2×4=8**
- a) Write the role of transketolase in conversion of Ribose to Fructose. 4
 - b) Give a sketch of Urea cycle. 4
 - c) Write role of carnitine on β -oxidation of SFA. 4
 - d) Describe the regulation of blood sugar regulated by hormones. 4

Group-C

- 3. Answer any one of the following questions: 1×8=8**
- a) Describe the β -oxidation of 16-carbon fatty acid along with enzyme. Compute energetics of that fatty acid metabolism in β -oxidation pathway. 6+2=8
 - b) How do you correlate glycolysis and TCA cycle? Write the flow chart of SAM formation. 5+3=8

(Turn Over)

Unit- 6
(Micronutrients in Nutrition)



1. Answer any two of the following questions:

2×2=4

- a) What is dental fluorosis?
- b) Mention two important functions of Zinc.
- c) How increased sodium intake causes hypertension?
- d) What is hemochromatosis?

2. Answer any two of the following questions:

2×4=8

- a) Write important dietary sources of vitamin E. Mention the role of vitamin E as antioxidant. **1+3=4**
- b) Describe the role of iodine in synthesis of thyroxine. What are the consequences of iodine deficiency in adults? **3+1=4**
- c) Describe the role of β -carotene in prevention of cancer and cataract. **2+2=4**
- d) Mention the functions of selenium. Write the role of fluoride in maintaining dental health. **2+2=4**

3. Answer any one of the following questions:

1×8=8

- a) Describe the mechanism of iron absorption. Mention the promoting and inhibiting factors of iron absorption. **4+(2+2)=8**
- b) Write the role of calcium in bone formation. How vitamin D helps in calcium absorption? What is osteoporosis? **4+2+2=8**
